

## AMENDMENTS TO THE CLAIMS

### **Claims 1-11 (Cancelled)**

**Claim 12 (New)** A process for the oxidation of organic substrates by means of  $^1\text{O}_2$ , which consists essentially of adding 30-70% strength  $\text{H}_2\text{O}_2$  to hydrophobic organic substrates which react with  $^1\text{O}_2$  in a monohydric  $\text{C}_1\text{-C}_8$  alcohol as a solvent in the presence of a homogeneous molybdate catalyst, whereupon  $\text{H}_2\text{O}_2$  is catalytically decomposed to give water and  $^1\text{O}_2$ , oxidizing said substrate to the corresponding oxidation products with precipitation of the catalyst, removing said precipitated catalyst by centrifugation or filtration and recycling said catalyst to said oxidation.

**Claim 13 (New)** The process as claimed in claim 12, wherein the substrates which react with  $^1\text{O}_2$  are olefins which contain 1 to 10  $\text{C}=\text{C}$  double bonds;  $\text{C}_6\text{-C}_{50}$  phenols, polyalkylbenzenes, polyalkoxybenzenes; polycyclic aromatics having 2 to 10 aromatic rings; alkyl sulfides, alkenyl sulfides, aryl sulfides which are either mono- or disubstituted on the sulfur atom, and  $\text{C}_4\text{-C}_{60}$  heterocycles having an O, N or S atom in the ring, which may be unsubstituted or may be mono- or polysubstituted by halogens, cyanide, carbonyl groups, hydroxyl groups,  $\text{C}_1\text{-C}_{50}$  alkoxy groups,  $\text{C}_1\text{-C}_{50}$  alkyl groups,  $\text{C}_6\text{-C}_{50}$  aryl groups,  $\text{C}_2\text{-C}_{50}$  alkenyl groups,  $\text{C}_2\text{-C}_{50}$  alkynyl groups, carboxylic acid groups, ester groups, amide groups, amino groups, nitro groups, silyl groups, silyloxy groups, sulfone groups, sulfoxide groups or by one or more  $\text{NR}^1\text{R}^2$  radicals in which  $\text{R}^1$  or  $\text{R}^2$  may be identical or different and are H;  $\text{C}_1\text{-C}_{50}$  alkyl; formyl;  $\text{C}_2\text{-C}_{50}$  acyl,  $\text{C}_7\text{-C}_{50}$  benzoyl, where  $\text{R}^1$  and  $\text{R}^2$  may also together form a ring.

**Claim 14 (New)** The process of claim 12, wherein the reaction temperature is between 0 and  $50^\circ\text{C}$ .

**Claim 15 (New)** The process of claim 13 wherein the reaction temperature is 15 to  $35^\circ\text{C}$ .

**Claim 16 (New)** The process of claim 12 wherein 2 to 10 equivalents of  $\text{H}_2\text{O}_2$  are used depending on the substrate used.